

Title (en)

Optical recording and reproducing device

Title (de)

Vorrichtung zur optischen Aufzeichnung und Wiedergabe

Title (fr)

Dispositif d'enregistrement et de reproduction optique

Publication

**EP 0818780 B1 20080813 (EN)**

Application

**EP 97108541 A 19970527**

Priority

JP 14769496 A 19960610

Abstract (en)

[origin: EP0818780A1] In an optical recording and reproducing device, an aperture member (15) is provided in a region between an objective lens (5) and a reflection mirror (4) so as to be freely pushed into and pulled out of a light flux, and a masking member (11) is provided on the objective lens. The masking member has an inside diameter smaller than an aperture diameter of the aperture member, and has an outside diameter greater than the aperture diameter of the aperture member. The aperture member has an outline size greater than a size of an aperture of an objective lens holding member. Therefore, an effective numerical aperture of the objective lens is determined in accordance with the inside diameter of the masking member in the case where the aperture member is placed in the light flux, whereas the effective numerical aperture is determined by the aperture of the objective lens holding member in the case where the aperture member is not placed in the light flux. With this arrangement, stable reproduction of a compact disk without being affected by a shift of the objective lens is enabled, while reproduction of a high-density disk is also enabled. <IMAGE>

IPC 8 full level

**G02B 1/10** (2015.01); **G11B 7/125** (2012.01); **G11B 7/135** (2012.01); **G11B 7/1374** (2012.01); **G11B 7/139** (2012.01); **G11B 7/00** (2006.01)

CPC (source: EP US)

**G11B 7/139** (2013.01 - EP US); **G11B 2007/0006** (2013.01 - EP US)

Designated contracting state (EPC)

DE GB

DOCDB simple family (publication)

**EP 0818780 A1 19980114**; **EP 0818780 B1 20080813**; CN 1095159 C 20021127; CN 1179595 A 19980422; DE 69738896 D1 20080925; JP 3426087 B2 20030714; JP H09330526 A 19971222; MY 116906 A 20040430; US 5790506 A 19980804

DOCDB simple family (application)

**EP 97108541 A 19970527**; CN 97105539 A 19970602; DE 69738896 T 19970527; JP 14769496 A 19960610; MY PI9702403 A 19970530; US 86334097 A 19970527